

What is claimed is:

1. A magnet switch for a starter comprising:

a hollow exciting coil member which provides a magnetic field when energized;

a switch case which covers the exciting coil;

a stator core disposed at an end of a portion of the switch case in the axial direction thereof;

a plunger disposed in the hollow portion of said exciting coil, said plunger having an end which confronts said stator core through an air gap;

a link member connected to the other end of said plunger and disposed outside said switch case, said link member having a pair of arms which axially extend along radially opposite outer surfaces of said switch case;

a movable contact supported and insulated from others by said link member to move together with said plunger; and

a stationary contact disposed opposite said movable contact;

whereby said movable contact contacts said stationary contact to supply electric power to a starting motor when said plunger is attracted by said exciting coil being energized,

wherein said switch case, said exciting coil and said plunger respectively have elliptic cross sections, and

wherein said link member is disposed so that the pair of arms thereof is disposed to extend along the minor axis of the elliptic cross sections and is movable in the axial direction of said switch case along the outer surface thereof.

2. The magnet switch as claimed in claim 1,
wherein said switch case has a pair of flat surface in the direction parallel to the minor axis, and

wherein said link member is disposed outside said flat surfaces so that the pair of arms moves along said flat surfaces.

3. The magnet switch as claimed in claim 1,
wherein said link member comprises a flange connected to the other end of said plunger and a holder made of insulating material, said holder supporting opposite sides of said movable contact.

4. The magnet switch as claimed in claim 2,
wherein said link member comprises a flange connected to the other end of said plunger and a holder made of insulating material, said holder supporting opposite sides of said movable contact.

5. A starter to be connected to an engine ring gear comprising:
a housing;
a starting motor disposed in said housing;
an output shaft and a pinion that are disposed at an end of said housing, said output shaft and pinion being connected by helical spline connection to be driven by said starting motor;
a magnet switch claimed in claim 1, said magnet switch disposed at the other end of said housing;
a pinion control member connected to said pinion;
a crank bar having one end connected to the other end of said plunger and the other end connected to said pinion control member to

transmit motion of said plunger to said pinion control member;

whereby said pinion is driven from said output shaft to engage the engine ring gear under the helical spline connection when said pinion control member controls rotation of said pinion.

6. The starter as claimed in claim 5, further comprising a cover which covers said magnet switch.